

**What we claim is:**

1. In an infrastructure in which some of a plurality of entities provide cryptographically supported services, a method of registering a subscriber entity of a plurality of entities at a principal entity of a plurality of entities, the method comprising:

the subscriber entity requesting service from the principal entity by sending a request message to a registrar entity of the plurality of entities;

the registrar entity verifying the subscriber entity and forwarding the request for service to the principal entity;

the principal entity storing the forwarded request and transmitting an acknowledgement message to the registrar entity, the acknowledgement stating acceptance and authentication/authorization information that the subscriber entity requires for the requested service; and

the registrar entity verifying the authenticity of the received acknowledgement message, and, if correct, forwarding the acknowledgement message to the subscriber entity.

2. A method as in claim 1 wherein the request message contains an indication of the type of service requested by the subscriber entity.

3. A method as in claim 2 wherein the request message contains one or more of the following:

- (a) a unique reference to the subscriber entity;
- (b) attributes about the subscriber entity;

- (c) authentication information to be used to authenticate use of the service;
- (d) transactional verification information;
- (e) representations by the subscriber entity agreeing to what the subscriber accepts;
- 5 (f) preferred service relationships;
- (g) a subscriber's authenticator.

4. A method as in claim 3 wherein the unique reference to the subscriber is at least one of (a) the subscriber's identity, (b) a pseudonym for one-time service, and (c) a pseudonym for continued use of the service

5. A method as in claim 3 wherein the session identifier links future responses to this particular request.

6. A method as in claim 3 wherein the attributes about the subscriber include:

- (a) self-representations; and
- (b) third-party representations asserting attributes.

7. A method as in claim 6 wherein said representations and attributes include at least some of:

- (a) addresses;
- (b) employment information;
- (c) information from other entities needed for service provisioning; and
- (d) authorizations from other parties.

8. A method as in claim 1 further comprising:

modifying the registration of the subscriber entity at the principal entity.

9. A method as in claim 1 further comprising:

5 moving the registration for service from the principal entity to another entity  
of said plurality of entities.

10. A method as in claim 1 wherein the service includes:

10 operating cryptographically-supported transaction involving the subscriber  
entity, the principal entity and possibly additional entities.

11. A method as in claim 1 wherein the subscriber entity comprises a  
plurality of elements.

12. A method as in claim 11 wherein the plurality of elements are  
15 associated with an entity.

13. A method as in claim 1 where said service is a subset of a totality of  
services.

14. A method as in claim 1 where service is a warranty service.

15. A method as in claim 13 wherein another subset of the totality of  
services to the subscriber entity is provided by an entity different from principal  
25 entity.

16. A method as in claim 15 wherein the subscriber entity can modify the subset of totality of services between entities.

5 17. A method as in claim 8 where modification is supervised by authorities.

18. A method as in claim 9 where moving of services is supervised by authorities.

10 19. A method as in claim 1 where provision of service may involve additional entity from the said plurality of entities.

15 20. A method as in claim 19 where provision of service is split between said principal entity and said additional entity.

21. A method as in claim 1 wherein provision of service by said principal entity on behalf of said subscriber entity is given by said operating infrastructure to an entity within said plurality of entities.

20 22. A method as in claim 1 wherein said provision of service by said principal entity involves other entities within said plurality of entities.

25 23. A method as in claim 14 wherein said warranty service involves correctness of representation of information.

24. A method as in claim 23 wherein said representation of information is at least one of: (a) identity information, (b) financial information; (c) information derived from provision of service within said infrastructure.

5

25. A method as in claim 14 wherein the system includes a mechanism to initiate claims against failed warranty.

26. A method as in claim 1 wherein said service provision involve control of access.

10

27. A method as in claim 1 wherein at least one of said plurality of entities is an enterprise.

28. A method as in claim 1 wherein at least one of said plurality of entities is a financial institute.

15

29. A method as in claim 1 wherein said principal entity is a group of elementary entities.

20

30. A method as in claim 1 wherein said provision of service by principal entity is directed by said subscriber entity.

31. A method as in claim 8 wherein registration modification transactions involve managing capabilities.

25

32. A method as in claim 8 wherein registration modification transactions involve cryptographic key management.

5 33. A method as in claim 1 further comprising:  
providing, by the principal entity, at least one of a set of various service transactions to the subscriber entity.

10 34. A method as in claim 33 wherein said providing involves the certification of digital identities.

35. A method as in claim 33 wherein at least one of said service transactions involves assuring an entity's state.

15 36. A method as in claim 33 wherein at least one of said service transactions involves assuring financial information.

37. A method as in claim 33 wherein at least one of said service transactions involves assurance of identity and assurance of entity's state.

20 38. A method as in claim 1 where some of said plurality of entities are supervised by other entities in at least one transaction.

39. A method as in claim 1, where services involve fees based on service agreements and contracts.

25

